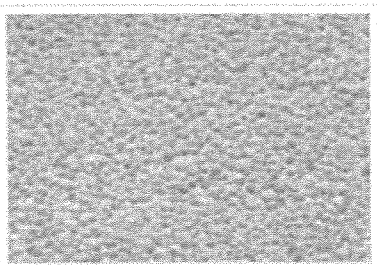
EXHIBIT K

Ethylene-vinyl acetate

From Wikipedia, the free encyclopedia



a close-up picture of open celled EVA

Polyethylene vinyl acetate (CAS# 24937-78-8, also known as **EVA** or sometimes simply as "acetate") is the copolymer of ethylene and vinyl acetate. The weight percent vinyl acetate usually varies from 10 to 40% with the remainder being ethylene.

It is a polymer that approaches elastomeric materials in softness and flexibility, yet can be processed like other thermoplastics. The material has good clarity and gloss, barrier properties, low-temperature toughness, stress-crack resistance, hot-melt adhesive and heat sealing properties and resistance to UV radiation. EVA has little or no odor and is competitive with rubber and vinyl products in many electrical applications.

EVA foam is used as padding in equipment for various sports such as ski boots, hockey, boxing, and mixed martial arts.

EVA is also used in biomedical engineering applications as a drug delivery device. The polymer is dissolved in an organic solvent (e.g., methylene chloride). Powdered drug and filler (typically an inert sugar) are added to the liquid solution and rapidly mixed to obtain a homogeneous mixture. The drug-filler-polymer mixture is then cast into a mold at -80 degrees and freeze dried until solid. These devices are used in drug delivery research to slowly release a compound over time. While the polymer is not biodegradable within the body, it is quite inert and causes little or no reaction following implantation.

Hot glue sticks are usually made from EVA, usually with additives like wax and resin. EVA is also used as a clinginess-enhancing additive in plastic wraps.

EVA is typically used as a shock absorber in for example tennis shoes.

It is also used in the photovoltaics industry as an encapsulation material for silicon cells in the manufacture of photovoltaic modules.

EVA is one of the materials popularly known as 'expanded rubber' or 'foam rubber'.

External links

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